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ABSTRACT

A case study examined one college student's poor performances during timed-writing sessions to develop a method to allow students to maintain the quality and ease in writing they achieve in other writing situations. The student, assigned to write a movie review, volunteered to participate in two 90 minute talk-aloud protocol sessions to examine his composing process. The first session revealed a major problem with lack of concentration during the composing process. Next, a set of cue cards was developed and modeled for the student writer to be used as a tool during the writing assignment. Each card contained one directive statement representing one general category of activity, for instance elaborating, planning, and making improvements. The second session revealed significant improvement in the student's attention to task, time management, planning behavior, and use of higher-level statements. The product was only marginally better than the first essay, however, indicating the need for further research. (The appendix contains six handouts of data and cue card prompts.) (KEH)

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The Effect of a Self-Cueing Treatment on Top-Level Goal Setting Strategies and Attention to Task in Timed-Writing Sessions

presented at
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I. THE PROBLEM -- Poor Performance in a Timed-Writing Setting

The problem that I've been working with and that I want to talk with you about this morning is nothing new. In fact, anyone who has taught composition classes or given written exams with enforced time constraints certainly knows that some students find it difficult if not impossible to succeed in timed-writing situations. They write poor exams, they panic, they get incredibly anxious, and--worst of all possibilities-- they sometimes get blocked and can't write anything at all. As English teachers you have probably also noticed that the students who panic or perform poorly on timed-writing tasks may very well be students who are moderately or even highly successful in other writing situations. Thus, their performance in these timed situations is not indicative of their writing abilities, of their knowledge on a certain subject, nor of their time and attention spent preparing for the task.

But, as we are all well aware, the timed writing setting is nonethelss often the one in which teachers diagnose or test students' writing abilities or test their knowledge on a particular subject. As a result, students who perform poorly in these timed settings are forced to encounter them over and over again.

In an attempt to discover a method to help students cope with this problem, I've done an exploratory case study. I began with a diagnostic talk-aloud protocol session with a student volunteer. This first protocol gave me the opportunity to examine the student's composing process in detail.

II. METHODS and REVIEW OF LITERATURE

The student was told that we would have a 90 minute session during which he was

to write a movie review of a film he had seen two days earlier and to direct his review to an audience consisting of the readership of his local newspaper. During the session he was also asked to communicate outloud into a tape recorder all of his thoughts while he was writing.

The result of this session seemed at first to be a total disaster. (If you would look at the first page of your handout, you'll see some excerpts from the last few minutes of that session. ne major problem w/ the session was that the student simply walked out after about seventy minutes and refused to finish the session. Furthermore, he spent much of his time during the taping complaining about writing and about how uncomfortable he was. Overall, he was very resistant to the writing process, even hostile. Doesn't sound much like someone who volunteered, does he?

When I interviewed him after that first session, the student said that he felt unable to concentrate for very long periods of time and thus was only used to writing for about twenty minutes or so at a sitting. "Staying on track is a really problem for me." Thus, writing in timed-writing sessions had always been a problem for him too.

It was this first session together, as well as my interviews with the student afterwards, that lead me to my decision to further examine and research this problem of poor performance in a timed-writing setting. I was particularly interested in considering problems with concentration or staying on task.

I would now like to give you an idea of how current research in the field of composition has considered this problem of lack of concentration during the composing process. If you'll turn to the next page of your handout, you'll find

some notes relevant to this section of my discusssion. Because of time constraints, I'll have to be brief in my review.

In their 1981 work "A Cognitive Process Theory of Writing," Flower and Hayes discuss the overload on the writer's concentration that happens during the writing process: "the growing text [what the writer has already written] makes large demands on the writer's time and attention during composing. ...it is competing with two other forces...the writer's knowledge stored in long-term memory and the writer's plans for dealing with the rhetorical problem" (p. 371). This competition between text, goals, and stored knowledge may well account for some writers' inability to maintain concentration on the task at hand during the writing process.

The solution to the lack of concentration problem seem obvious: learn how to concentrate. But, as any of us who have difficulty concentrating well know, the solution is much easier said than done.

The current literature reveals precious little research discussing strategies for learning how to develop concentration during the writing process. In the jargon of the field, this skill might will be called "meta-attention," that is, the process by which one teaches her attention capacity to pay attention to itself, to control itself. I did uncover a plethora of literature examining the larger notion of metacognition itself, a term which refers to the conscious control over any or all cognitive processes such as remembering, attending, comprehending, and using language (Bondy, 1984).

Metacognitive skills are task-specific, by which I mean that the actual skills required to "enlist [certain cognitive] strategies and orchestrate their use"

(Palinscar & Brown, 1982, p. 67) seem to vary from one discipline to the next, even from one task to the next. However, the focus of the literature on metacognition seems to be on developing metacognitive skills to produce better readers rather than better writers. Accordingly, it's essential to discern which skills are specific to the writing task if we want to teach students to improve their metacognitive skills-- for instance, concentration--while they're composing.

Though the Flower and Hayes research I've considered never specifically mentions metacognition per se, it does -- I think--identify and define the task-specific metacognitive skills that most relate to composing. Consider their notion of the "higher level" or global aspect of goal setting as the skill that distinguishes expert from novice writers (1980, 1981, 1986). In their "Cognitive Process" theory of writing Flower & Hayes describe this global level of goal setting as the one that the writer must "pop up" to in order to exert executive control over her writing process (p. 379). They also consider this global level as the one where the writer most thoroughly defines and evaluates her understanding of the rhetorical problem, changing it if necessary until she's satisfied she's accurately represented that problem to herself (1980). In other words, it's the writer's top-level goals that give her composing process direction and coherence, and good writers--metacognitively aware and on-task writers--are those who make and manage global plans. If, then, we can teach a writer to exert executive control over her top level goals, to manage the competition between the growing text and her goals, then we will also be teaching strategies that will improve her concentration during any writing session, even a time constrained one.

The next logical question, of course, is HOW do we do that? What specific strategies help develop this skill of executive control over the writing process and thereby improve a writer's concentration during composing? Some of the best strategies relevant to writing that I've uncovered are in the works of Scardamalia and Bereiter, who have often addressed the issue of goal setting in the writing process and have responded with some strategies for helping writers "pop up" from text generation to higher levels of planning, monitoring, and evaluating. Specific instructions for facilitating executive process during writing tasks and for teaching goal setting to writers are presented and tested in Scardamalia and Bereiter's experiments with the Compare, Diagnose, Operate approach to children's composing processes (1983). In her textbook Problem-Solving Strategies for Writing, Linda Flower also offers strategies for learning how to make plans and set goals.

From the strategies suggested by Flower and by Scardamalia and Bereiter, I developed what I ultimately used as the materials to present to my student. (Please refer to the next page--2--of your handout to see the sorts of statements that were written on the cue cards.) What I developed was a set of cue cards for the writer to use as a tool to assist in the composing process. Each card contained one statement. Also indicated on each card was the general category of the activity that the specific card represented, for instance elaborating, planning, making improvments, and so on.

In order to test the effectiveness of the cards, my volunteer student and I met for another talk-aloud protocol session. I modeled the use of the cards to show the student how to insert the statements on the cards into his own talk-aloud process. I instructed the student to only refer to the cards when he felt his

attention wandering or when he didn't know what else to do. I also advised him to skip over any cards that didn't immediately seem relevant or useful.

Immediately after my modeling, the student did another talk-aloud protocol during a ninety minute timed-writing session. As with the first seession, he was again asked to write a movie review. The specific movie about which he was asked to write was different this time, but all other aspects of the writing assignment and timed-session were the same as those before. The only exception was the cue card prompts at the student's disposal during the second session.

After this second session, I analyzed and compared the essays and protocols that the student had generated during the two sessions.

My comparison of the essays themselves involved two holistic readings (done by myself and a colleague) and assessments of the essays' quality. My comparison of the protocols involved first parsing the statements into segments of the subject's actual writing and segments of his reading or re-reading what he had written. Then, the remaining statements in the protocol were coded (by me and verified by a colleague) according to type. If you'll please turn to page 3 of your handout, you'll see the name and my definition of each of these types of statements: ELABORATING, PLANNING, MONITORING. You'll also find examples of each type of statement, examples taken directly from the student's own protocols. After this coding was completed, the planning/goal setting statements alone were then further classified according the level of goal. Page 4 of your handout explains the characteristics of each type of goal--GLOBAL or HIGH LEVEL, MIDDLE RANGE, and LOCAL or LOW LEVEL--and again gives examples of each type as seen in the student's protocols.

IV. RESULTS

I'd now like to discuss what I discovered when I examined the data I had collected during throughout this case study.

The most immediate and dramatic result was the fact that not only did the student finish all of the second timed session, but he did so amiably and without ANY instances of the complaining about the process that he had used during the first protocol. Not one. In fact, at the end of the 90 minutes, he even asked if he could write a little longer because he really wanted to finish his essay.

A more concrete result showed up in my comparison of the two talk-aloud protocols. During the second timed session--the one during which the subject used the cue cards--he showed not only far greater attention to task and but also more evidence of planning activities. (PLEASE refer to page 5 of your handout.)

In order to present equal segments of time and thus a perhaps more balanced picture, I first compared only the first forty-five minutes of each session. Since--as you may recall--the subject only completed about seventy minutes of the scheduled 90 minutes of the first session, I wanted to have an idea of what sorts of statements he was making during the similar time frames in each protocol. As you can see in the table on the top of page 5 (handout), the student produced over 1 1/2 times as many planning statements during the first half of his second session as he did during the first half of the first timed-writing session: 42 statements as opposed to 25. Even more encouraging are the figures in the table on the bottome of page five which show that the student tripled the number of <u>global level</u> planning statments he was making in the second protocol. Remeber that those global plans are the one that distinguish expert writers from

novices.

In the interests of a fair comparison, I have also included the total numbers of the various levels of planning statements made in the two protocols. Plesae turn now to the table on the last page, page 6, of the handout. The student's total number of planning statements in each protocol are quite different: 32 total in the first session and 81 in the second. This may not be surprising since the student wrote for a longer time period during the second session. However, we also see here that though the percentage of plans the student made in the middle range remain approximately the same, his percentage of top level plans increases increases in the second session: 27% as opposed to 19% in the first session. We can see that when using the cue cards, the student is replacing local, sentence level plans with global, top level ones.

A most UNdramatic and disappointing result i discovered in my analysis of the data was that the second essay was only marginally better than the first, even though it was more than twice as long. I found this to be quite surprising, and I don't have any definite explanation for it. It may be related to the fact that though the student is making higher level planning statements, he does not always execute those plans. It may also be the case that the student could never totally compensate for nor redefine the local level goals that began his process, for it was not until he began referring to the cards regularly that his number of top level goals increased significantly. It would be very interesting to note the student's planning behavior after two of three sessions with the cue card prompts and to take note of the changes--if any--in the essays he's writing after more exposure to the cues.

V. IMPLICATIONS FOR FUTURE RESEARCH

Since this exploratory case study involved only one student, I obviously cannot make any reasonable generalizations about what will solve the problem of students' porr performances during timed-writing sessions. I can, however, certainly assert that this problem is one that deserves further study--even if only because it plagues so many writers, experts as well as novices.

Furthermore, I can assert that the improvements in attention to task and in levels of goal setting that this particular student experienced convince me that the strategy I proposed deserves further study on a larger scale. If those improvements are repeated on a larger scale, then we may well have an idea of the methods by which we may teach novice writers to imitate and incorporate the top level goal setting strategies that Flower and Hayes say are essential to good writers. Thus, the incorporation of cue card prompts may prove to be a method that produces metacognitively aware and on-task writers, writers who have developed meta-attention skills and who can exert executive control over their cognitive functions during the composing process.

If so, then we may also have an indication of the methods we can use to assist writers who perform poorly in timed-writing sessions and to allow them to maintain the quality and ease in writing they achieve in other writing situations.

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APPENDIX

HANDOUTS TO ACCOMPANY PRESENTATION OF

The Effects of a Self-Cueing Treatment...

The Effect of a Self-Cueing Treatment on Top-Level Goal Setting Strategies and Attention to Task in Timed-Writing Sessions

presented at
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Excerpts from the last few minutes of student's first timed protocol:

"I'm getting tired of this. I never sit and write this long...I can't sit still this long. My mind's wandering on the, on other things...I'd rather be doing the dishes than forcing myself to sit here...I'm supposed to be doing something that has to do with writing for an hour and a half [but] if I get up and go read the paper, I'm not...I'm tired of writing this. It's too hard to do...I have nowhere to go now...Maybe if you asked some good questions, I could get through this...I'm wondering why I'm doing all the work and you don't have to and I'm supposed to figure out how to do it [write the moview review] and you're not helping me. I'm feeling angry because I'm sitting here and I don't want to be...I'm getting completely off the track with this. I'm going to read the newspaper." [Student leaves the writing table.]

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GOAL SETTING AND THE METACOGNITIVE ASPECTS OF THE COMPOSING PROCESS

In "A Cognitive Process Theory of Writing," Flower and Hayes discuss the overload on the writer's concentration that happens during the writing process: "the growing text [what the writer has already written] makes large demands on the writer's time and attention during composing. ...it is competing with two other forces...the writer's knowledge stored in long-term memory and the writer's plans for dealing with the rhetorical problem" (1981: 371). This competition between text, goals, and stored knowledge may well account for some writers' inability to maintain concentration on the task at hand during the writing process.

Flower and Hayes' also contend that the "higher level" or global aspect of goal setting is what distinguishes expert from novice writers (1980, 1981, 1986). Their "Cognitive Process" theory of writing describes this global level of goal setting as the one that the writer must "pop up" to in order to exert executive control over her writing process (1981: 379). They also define this global level as the one where the writer most thoroughly defines the rhetorical problem, evaluates that definition and changes it if necessary, and accurately represents that problem to herself ("The cognition of discovery," 1980). Further, they contend that the goals a writer has are the force that drives her process in general (1980: 27). The writer's specific top-level goals give her composing process direction and coherence.

These descriptions of a good writer's goals seem to comply with those that others (Brown & Palinscar, 1982) have used to define metacognition: "Knowledge about cognition and regulation of cognition [that]...involves conscious access to one's own cognitive operations. . .[The] functions of regulation of cognition include planning activities...monitoring activities...and checking outcomes (evaluating...in terms of efficiency and effectiveness)"(1-2).

Thus, the term metacognition refers to the conscious control over any or all cognitive processes such as remembering, attending, comprehending, and using language (Bondy, 1984). Metacognitive skills are task-specific: the actual skills required to "enlist [certain cognitive] strategies and orchestrate their use" seem to vary from one discipline to the next, even from one task to the next. And the "executive control" aspect of global goal setting seems to indicate that that top level of planning is at least one of the metacognitive skills specific to the writing process.

Cue Card Prompts

Planning Goals:	My overall purpose is...
	My relationship w/ my reader is...(e.g. student to professor, expert to expert, friend to friend).
	My finished paper will look like...
	What I want to do in this section is...
	When she reads this, I want my reader to feel [think]...
	To establish my relationship with my reader, I'll...
	The best way to accomplish my purpose is...
	The effect I want to have on my reader is...
Getting New Ideas:	No one will have thought of...
	An important point I haven't considered is...
	A whole new way to think of this topic is...
Putting It Together:	My next point...
	My main point here is...
	I can tie this together by...
	I want to start off by...
	If I want to use my strongest point most effectively, I'll...
Elaborating:	The reason I think so is...
	This is true, but it's not sufficient. So...
	Another way to put it would be...
	I could develop this idea by adding...
Making Improvements:	This isn't very convincing because...
	I can make this clearer by...
	I don't think this is necessary because...
	I can better get my reader's attention by...
	A better way to do what I want in this section would be...
	I can show my reader my purpose by...
	My reader might not believe this, so...
	What I really mean is...
	I'm getting off the topic, so...
	My reader won't see why this is important, so...

TYPES OF PROTOCOL STATEMENTS

*** ELABORATIVE -- indicate the writer's bringing in of new information based on her own prior knowledge, a specific inferencing statement about the nature of the writing assignment or of the source being written about.

Examples:
---"Why would it [the movie] pick people that are on the fringe?... And why now when the administration is using drugs in an effort to gain more control?"

---"It doesn't seem like they [the Klansmen] were picking out anybody in particular but everybody in general...but my memory of the time period is not very clear so I'm not sure if these were caricatures."

*** PLANNING -- indicate the writer's future moves; her choice, desire, or intent to carry out some particular action.

Examples:
---"I think I still want to keep setting the scene."
---"I'll elaborate on that later."
---"I want to start off by getting my thoughts more organized."

*** MONITORING -- indicate the writer's need to discover direction, get her bearings, describe or evaluate how her writing process is going.

Examples:
---"I'm getting off the track."
---"Getting started is always the hardest part."
---"I'm sort of stuck with this."
---"I'm getting into it too fast."
---"Maybe I'm spending too much time talking about the beginning."

TYPES OF PLANNING STATEMENTS

*** TOP or GLOBAL LEVEL -- goals relating to the entire task that specify the nature of the end state. A top level goal usually represents the larger rhetorical problem, for instance the assignment, the audience, or the writer's own goals (Flower & Hayes, 1980). This top level is also a place to which writer "pops back up" to review and consolidate the information she has generated (Flower & Hayes, 1981).

Examples:
---"I want the reader to know I liked the movie and convince them it's worth seeing."

---"I want to make points."
---"I want to analyze."
---"I want to talk about the acting, photography, directing..."

*** MIDDLE RANGE -- goals that relate to one or more paragraphs or chunks of text, but not to the entire task. These goals "lie between intention and actual prose...give substance and direction to more abstract goals and...breadth and coherence to local decisions about what to say next" (Flower &Hayes, 1981).

Examples:
---"What I want to do now is figure out the introduction."
---"I'm still going to use that [information] but not right here."
---"What I'd like it to look like is a first paragraph or two briefly explain[ing] about the movie or the story."

---"I should put that [information] in before I name the setting, so I'm going to write that in up here [i.e. in an earlier paragraph]."

*** LOW or LOCAL LEVEL -- goals at the word, phrase, or sentence level such as "finishing a sentence or correctly spelling a word" (Flower & Hayes, 1981).

Examples:
---"I'm going to quote him and say 'That's the opening line...'"
---"I want to talk about their age, probably mid twenties."
---"I'll stick with that [the word "band"]; I can change it."
---"I can relate to this sentence by saying something about yes, he is a drug addict."

	FIRST PROTOCOL W/OUT CUE CARDS	SECOND PROTOCOL WITH CUE CARDS
PLANNING	25	42
ELABORATIVE	23	31
MONITORING	22	24

APPROXIMATE NUMBER OF LINES OF TYPES OF STATEMENTS DURING FIRST 45 MINUTES OF PROTOCOL

	FIRST PROTOCOL W/OUT CUE CARDS	SECOND PROTOCOL WITH CUE CARDS
TOP-GLOBAL	3 (12%)	10 (24%)
MIDDLE	11 (44%)	18 (43%)
LOW-LOCAL	11 (44%)	14 (33%)

LEVELS OF PLANNING STATEMENTS MADE DURING FIRST 45 MINUTES OF PROTOCOL

	FIRST PROTOCOL W/OUT CUE CARDS	SECOND PROTOCOL WITH CUE CARDS
TOP-GLOBAL	6 (19%)	22 (27%)
MIDDLE	14 (44%)	36 (45%)
LOW-LOCAL	12 (37%)	23 (28%)

LEVELS OF PLANNING STATEMENTS